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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,739	12/03/2003	Siobhan Casey	C4275(C)	6809
201	7590	03/09/2006	EXAMINER	
UNILEVER INTELLECTUAL PROPERTY GROUP 700 SYLVAN AVENUE, BLDG C2 SOUTH ENGLEWOOD CLIFFS, NJ 07632-3100			DOUYON, LORNA M	
			ART UNIT	PAPER NUMBER
			1751	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/726,739	CASEY ET AL.
Examiner	Art Unit	
Lorna M. Douyon	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 03 December 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-21 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3 pages.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_ .

***Specification***

1. The disclosure is objected to because of the following informalities: On page 9, line 13, it is suggested that the phrase “as claimed in any preceding claim” be replaced with the appropriate wordings.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

2. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 lacks support for “the ethoxylated nonionic surfactant” (see line 3) with respect to claim 1. Shouldn’t this claim depend from claim 8?

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 12-14, 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Steen et al. (US Patent No. 4,026,825), hereinafter “Steen”.

Steen teaches a composition containing alkyl glyceryl ether sulphonate paste (96 parts), which is an anionic surfactant, anhydrous sodium sulphate (3.92 parts) and dye (0.08 parts)

which was dried by drum drying to a solid flake (which reads also on irregular shape) containing 0.8% of moisture which was further treated by freeze grinding resulting in a powder having a bulk density of 0.45 gm/cc (450 g/l), (see col. 10, line 64 to col. 11, line 12) and 92% by weight passed a 100 mesh screen (equivalent to 150  $\mu$ m) and 80% passed through a 200 lb. screen (equivalent to 75  $\mu$ m) (see col. 11, lines 23-26). Inasmuch as the amount of sodium sulphate above is minimal, it should read on the “substantially free of inorganic salts” required in claim 13. Steen teaches the limitations of the instant claims. Hence, Steen anticipates the claims.

5. Claims 1-7 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer et al. (US Patent No. 5,739,097), hereinafter “Bauer ‘097”.

Bauer ‘097 teaches surfactant granules comprising 92.0 wt% neutralized FASS (sulfuric acid semiester of C<sub>12-14</sub> fatty alcohol), an anionic surfactant, having a bulk density of 500 g/l (see Example 4, col. 8, line 14 to col. 9, line 23). Inasmuch as the inorganic salts, by difference, is minimal, it should read on the “substantially free of inorganic salts” required in claim 13. Bauer ‘097 teaches the limitations of the instant claims. Hence, Bauer ‘097 anticipates the claims.

6. Claims 1-13, 16, 18-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fues et al. (US Patent No. 5,536,430), hereinafter “Fues”.

Fues teaches, in Example 6, porous carrier beads (which are also considered as having an irregular shape) prepared from a mixture of 70:20:10 Sulfopon T55 (an anionic surfactant based on fatty alcohol sulfate): soda:Dehydol TA40 (which is a tallow alcohol ethoxylate, on average 40 EO) having an apparent density of 218 g/l (see col. 19, lines 10-15; col. 20, lines 21-23). Fues

also teaches that the carrier beads have a microporous inner structure with anionic surfactant content in their uncharged state of at least about 50% by weight, the anionic surfactant content making up 70, 80 or even as much as 90 to 95% by weight of the carrier beads (see col. 10, lines 32-37). In special cases, it is even possible to form the porous carrier beads from the anionic surfactant without using any auxiliaries (see col. 12, lines 31-33). In Example 2, Fues also teaches a surfactant powder prepared by spray drying which comprises sodium salt of a  $C_{16/18}$   $\alpha$ -sulfofatty acid and polyethylene glycol, in a ratio by weight of the dry substances of 9:1 and the product has an apparent density of 290 g/l (see col. 17, lines 58-67). Fues also teaches that other useful materials and optional auxiliaries may be added to the carrier beads (see col. 13, lines 7-10). Fues teaches the limitations of the instant claims. Hence, Fues anticipates the claims.

7. Claims 1-7, 12-13, 16-18 and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Strickland, Jr. et al. (US Patent No. 4,874,536), hereinafter "Strickland".

Strickland teaches a solid water-soluble cake comprising from 20% to 90% sodium alkyl sulfate (AS)/sodium alkyl benzene sulfonate (LAS) (see abstract). In Example 1, Strickland teaches flakes comprising 44.55 parts AS, 41.48 parts LAS, 6.59 parts NaCl, 0.25 parts  $Na_2CO_3$ , 1.00 parts  $H_2O$  (which reads on the binder) and 6.13 parts miscellaneous solids (see col. 9, lines 2-12). In Example II, the flakes of Example 1 were blended with perfume, additional NaCl and dye, mixed well and plodded and then extruded into strips which were cut into cakes (equivalent to the surfactant body of the present claims) of approximately 6.4 cm in length (see col. 9, lines 14-37). The bulk density of the flakes is from 0.08 to 0.24 gm/cc (equivalent to 80 to 240 g/l) (see col. 4, lines 3-4). The amount of NaCl and  $Na_2CO_3$  above is minimal, hence, it should read

on the “substantially free of inorganic salts” required in claim 13. Strickland teaches the limitations of the instant claims. Hence, Strickland anticipates the claims.

8. Claims 1-7, 12-16, 18-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Emery et al. (WO 96/06916), hereinafter “Emery”.

Emery teaches a process for the production of detergent particles comprising at least 75%, preferably at least 85% by weight of an anionic surfactant and no more than 10% by weight of water which comprises feeding the water and surfactant into a drying zone and cooling the material to form detergent particles wherein at least 80% of the particles have a particle size of 180 to 1500  $\mu\text{m}$ , preferably 250 to 1200  $\mu\text{m}$  and less than 10% have a particle size less than 180  $\mu\text{m}$  (see page 3, lines 1-13; page 8, lines 1-5), which inherently have irregular shapes, and a high bulk density for example in excess of 550 g/cm<sup>3</sup> (see page 4, lines 31-33). Emery also teaches a detergent composition comprising the detergent particles above, a detergency builder and optionally bleaching components and other active ingredients (see page 12, lines 16-32). In Example 2, Emery teaches detergent particles comprising 96 to 97.5% PAS (primary alkyl sulphate) and 1.5 to 2% moisture (see page 18, lines 21-29). In Example 11, Emery teaches detergent particles comprising 76% Coco PAS C<sub>12-14</sub> sodium salt, 19% LIAL 123 AS (which is a branched PAS sodium salt) and 5% PEG (polyethylene glycol) 4000 (see page 20, lines 20-27). Emery teaches the limitations of the instant claims. Hence, Emery anticipates the claims.

9. Claims 1-7, 12-18 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Iding et al. (GB 2,142,341), hereinafter “Iding”.

Iding teaches surfactant flakes which are 90% to 99.5% sodium alkyl sulphate/sodium alkyl benzene sulfonate (AS/LAS) surfactant (see page 1, lines 63-65). In Example I, Iding teaches surfactant flakes comprising 45.30 parts AS, 40.90 parts LAS, 6.53 parts NaCl, 0.23 parts sodium carbonate, 1.00 parts H<sub>2</sub>O (which acts as binder) and 6.04 misc. solids (see Example 1, page 6, line 15 to page 7, line 14). Bulk density of the flakes is from 0.08 to 0.24 gm/cc (equivalent to 80 to 240 g/l) (see page 3, line 12), and flake thickness is from 0.1 mm to 1.3 mm (equivalent to 100 to 1,300 microns), preferably from 0.2 mm to 1.0 mm (equivalent to 200 to 1,000 microns) (see page 3, lines 9-11). The flakes of Example 1 were agglomerated with perfume, additional NaCl, and dye, plodded and extruded through a 1.3 cm x 4.9 cm orifice into strips (see Example II, page 7, lines 15-36). The amount of NaCl, sodium carbonate and misc. solids above is minimal, hence, it should read on the “substantially free of inorganic salts” required in claim 13. Iding teaches the limitations of the instant claims. Hence, Iding anticipates the claims.

10. Claims 1-10, 12-16, 18-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer et al. (US Patent No. 5,516,447), hereinafter “Bauer ‘447”.

Bauer ‘447 teaches surfactant granules which contain from 10 to 100% by weight, more preferably from 30 to 80% by weight based on the final granules (see col. 8, lines 17-22). The granules have a particle size distribution in which at most 5% by weight and preferably at most 3% by weight of the particles are larger than 2.5 mm in diameter and at most 5% by weight are below 0.1 mm in diameter (see col. 8, lines 38-44). In Example 6, Bauer ‘447 teaches surfactant granules comprising Sulfopon ® T 55 (tallow fatty alcohol sulfate) and 3 wt% PEG 400

(polyethylene glycol having a relative molecular weight of 400, the total surfactant content is 83% by weight, having an apparent density of 540 g/l and an average particle size of 0.8 mm (800 microns), which are inherently irregular in shape. In Example 8, the surfactant granules comprises Sulfopon ® T 55, Dehydol ® LT 7 (C<sub>12-18</sub> fatty alcohol 7 EO) and Sulfopon ® T (tallow fatty alcohol sulfate powder), the total surfactant content is 80.2% by weight, having an apparent density of 505 g/l and an average particle size of 0.8 mm (see col. 9, line 6 to col. 11, line 20). Highly ethoxylated fatty alcohols, for example containing 20 to 80 EO may also be used (see col. 7, lines 50-54). Bauer '447 also teaches a surfactant formulation containing the above surfactant granules and other additives such as dyes, foam inhibitors and bleaches (see col. 5, lines 46-54). Bauer '447 teaches the limitations of the instant claims. Hence, Bauer '447 anticipates the claims.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fues as applied to the above claims, and further in view of Bauer '447.

Fues teaches the features as described above. Fues, however, fails to disclose the particle size of the carrier beads.

Bauer '447 teaches similar surfactant granules having a particle size distribution in which at most 5% by weight and preferably at most 3% by weight of the particles are larger than 2.5 mm in diameter and at most 5% by weight are below 0.1 mm in diameter (see col. 8, lines 38-44), for example, an average particle size of 800 microns (see Example 8, Table 2 under cols. 11-12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reasonably expect the carrier beads of Fues to have a particle size within those recited, say for example, 800 microns, because it is shown by Bauer '447 that a similar composition having similar bulk densities have similar particle sizes.

13. Claims 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fues or Bauer '447 as applied to the above claims, and further in view of Strickland.

Fues or Bauer '447 teaches the features as described above. Fues or Bauer '447, however, fails to disclose surfactant particles in flakes form and the process of converting the surfactant particles to a cohesive state by heating and/or mixing with a binder and allowing the resulting cohesive assembly of particles to form a solid body.

Strickland teaches a similar composition which is used in the preparation of bars and cakes for use in toilet bowls using surfactant flakes which comprises blending the flakes into a homogeneous mass with other raw materials such as perfumes, dyes (which both act as binders), etc., and noodled, plodded, extruded, cut or stamped to form uniform bars and cakes (see col. 5, line 63 to col. 6, line 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare the surfactant beads or granules of Fues or Bauer '447 in flakes, bar or cake form because it is shown by Strickland that similar compositions can be formed in different forms such as flakes, bar or cake to perform a specific utility such as the use in toilet bowls.

### ***Double Patenting***

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claim 7 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim1 of copending Application No. 10/726,738.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to similar surfactant components comprising alkylbenzene sulphonate and alkyl sulphate differing only in their respective weight ratio. Modification of the

proportions of the alkylbenzene sulphonate and alkyl sulphate, however, is within the level of ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. The references are considered cumulative to or less material than those discussed above.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is (571) 272-1313. The examiner can normally be reached on Mondays-Fridays from 8:00AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
LORNA M. DOUYON  
PRIMARY EXAMINER